APR 2 9 2005

JC07 Rec'd PCT/PTC 2.9 APR 2009 CT PATENT Corney Docket No. 00798-04

IN THE WITTED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Brian H. Augustine, et al.

Customer No. 34444

Serial No.

10/520,763

Art Unit:

Unknown

Filed:

January 10, 2005

Examiner:

Unknown

Title:

Hybrid Polymers for Functional Tuning of Microfluidic Device Surfaces

Certificate of Mailing Under 37 CFR §1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service using First Class Service under 37 C.F.R. § 1.8 on the date indicated below and is addressed to Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Date: April 28, 2005

Sue Ann Carr

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. 1.97(b)(3)

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Information Disclosure Statement for the above identified application, consisting of Form PTO/SB/08A along with eleven (11) copies of U.S. patents and four (4) copies of foreign patents, Form PTO/SB/08B, and copies of thirteen (13) references. The Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits per 37 C.F.R. 1.97(b)(3).

Applicants respectfully submit that the filing of this Information Disclosure Statement is not a representation that a prior art search was conducted or that the information cited is material to the patentability of the invention as defined in 37 CFR § 1.56, or that any cited document is prior art. Applicants request that the Examiner consider the references, determine their relevance to the present application, if any, and list the references on the face of any patent which may issue from the present application. Applicants further request that an initialed copy of Forms PTO/SB/08A and PTO/SB/08B be returned to applicants.

No fees are believed to be due for this submission. If this belief is in error, the Commissioner is hereby authorized to charge any fees due for this submission to Deposit Account No. 50-0423, as well as credit any refunds.

Respectfully submitted,

Rodry L. Spark

April 28, 2005

Rodney L. Sparks

Registration No. 53,625

University of Virginia Patent Foundation 1224 West Main Street, Suite 1-110 Charlottesville, VA 22903

Telephone: (434) 243-2870

Fax: (434) 924-2493

10 Res'd PCT/PTO 29 APR 2005

APR 2 9 2005

PTO/SB/08a (08-03) Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office, U.S. Det rather the Paper of Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Sub	1449A/PTO			Complete if Known			
				Application Number	10/520.763 01/10/2005		
11	NFORMATION D	ISCLO	SURE	Filing Date			
S	TATEMENT BY	APPLIC	CANT	First Named Inventor Brian H. Augustine			
			. ,	Art Unit	Unknown		
	(Use as many sheets as	s necessary)		Fyaminer Name	Unknown		
Sheet	1	of	1	5 1 444	00798-04		

				U. S. PATENT	DOCUMENTS		
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ^{2 (jf known)}		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	1	^{US-} 6,653,365	В2	11/25/2003	Jia	Entire Document	
	2	^{US-} 6,586,548	B2	07/01/2003	Bonafini, Jr., et al.	Entire Document	
	3	^{US-} 6,576,345	В1	06/10/2003	Van Cleemput, et al.	Entire Document	
	4	^{US-} 6,558,455	В1	05/06/2003	Sammons, et al.	Entire Document	
	5	us- 6,326,083	В2	12/04/2001	Yang, et al.	Entire Document	
	6	^{US-} 5,561,208		10/01/1996	Takahashi, et al.	Entire Document	
	7	^{US-} 5,376,252		12/27/1994	Ekström, et al.	Entire Document	
	8	^{US-} 4,510,257		04/09/1985	Lewis, et al.	Entire Document	
	9	^{US-} 2002/0182541	A1	12/05/2002	Gonsalves	Entire Document	
	10	^{US-} 2002/0128414	A1	09/12/2002	James, Jr., et al.	Entire Document	
	11	^{US-} 2002/0029968	A1	03/14/2002	Tan, et al.	Entire Document	
		U\$-					
		US-			,		
		US-					
		US-					
		US-					
		US-					
		^{US-} 6.					

	FOREIGN PATENT DOCUMENTS												
Examiner Initials*	Cite No.1		tent Document 3-Number 4-Kind Code 5 (if known)		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶					
	12	WO	02/08744	A2	01/31/2002	ACLARA Biosciences, Inc.							
	13	wo	01/72885	A 1	10/04/2001	Hybrid Plastics, LLP	Entire Document						
	14	EP	1 036 808	B1	12/18/2002	Dow Corning Asia, Ltd.	Entire Document						
	15	EP	1 036 808	A2	09/20/2000	Dow Corning Asia, Ltd.	Entire Document						

Examiner	 Date	· <u>-</u>
Signature	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08b (08-03)
Approved for use through 06/30/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
on Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Filing Date
First Named Inve

Application Number 10/520,763

Filing Date 01/10/2005

First Named Inventor Brian H. Augustine

Art Unit Unknown

Examiner Name Unknown

(Use as many sheets as necessary)

| Unknown | Sheet | 1 | of | 2 | Attorney Docket Number | 00798-04

	NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²					
	A	CHEN, YH., et al., (2000). "Analysis of DNA fragments by microchip electrophoreses fabricated on poly(methylmethacrylate) substrates using a wire-imprinting method", Electrophoresis, Vol. 21, pp. 165-170.	_					
	В	DANG, F., et al., (2003). "Ultrafast analysis of oligosaccharides on microchip with light-emitting diode confocal fluorescence detection", Electrophoresis, Vol. 24, pp. 714-721.						
	С	GALLOWAY, M., et al., (2002). "Contact Conductivity Detection in Poly(methylmethacylate)-Based Microfluidic Devices for Analysis of Mono- and Polyanionic Molecules", Anal. Chem., Vol. 74, pp. 2407-2415.						
	D	GRASS, B., et al., (2001). "A new PMMA-microchip device for isotachophoresis with integrated conductivity detector", Sensors and Sctuators B, Vol. 72, pp. 249-258.						
	Е	LEE, GB., et al., (2001). "Microfabricated plastic chips by hot embossing methods and their applications for DNA separation and detection", Sensors and Actuators B, Vol. 75, pp. 142-148.						
	F	LICHTENHAN, J.D., et al., (1995). "Linear Hybrid Polymer Building Blocks: Methacrylate-Functionalized Polyhedral Oligomeric Silsesquioxane Monomers and Polymers", Macromolecules, Vol. 28, pp. 8435-8437.						
	G	LIN, YC., et al., (2001). "Electroporation microchips for continuous gene transfection", Sensors and Actuators B, Vol. 79, pp. 137-143.						
	Н	SOPER, S.A., et al., (1999). "Nanoliter-scale sample preparation methods directly coupled to polymethylmethacrylate-based microchips and gel-filled capillaries for the analysis of oligonucleotides", J. of Chromatography A, Vol. 853, pp. 107-120.						
	I	SUNG, WC., et al., (2001). "Plastic microchip electrophoresis for genetice screening: The analysis of polymerdase chain reactions products of fragile X(CGG)n alleles", Electrophoresis, Vol. 22, pp. 1188-1193.						
	J	WANG, J., et al., (2002). "Towards disposable lab-on-a-chip: Poly(methylmethacrylate) microchip electrophoresis device with electrochemical detection", Electrophoresis, Vol. 23, pp. 596-601.						

	·		
ſ			
Examiner		Date	
Signature		Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

APR 2 9 2005

PTO/SB/08b (08-03) Approved for use through 06/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for	form 1449B/PTO	,		Complete if Known			
INIEGE				Application Number	10/520,763		
	RMATION DI			Filing Date	01/10/2005		
STATEMENT BY APPLICANT				First Named Inventor	Brian H. Augustine		
	(Use as many sheets as		•	Art Unit	Unknown		
	Cose as many sneets as	necessary)		Examiner Name	Unknown		
Sheet	2	of	2	Attorney Docket Number	00798-04		

		NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publ and/or country where published.					
	K	XU, F., et al. (2002). "DNA separation by microchip electrophoresis using low-viscosity hydroxypropyl-methylcellulose-50 solutions enhanced by polyhydroxy compounds", Electrophoresis, Vol. 23, pp. 3608-3614.	1			
	L	ZHANG, W., et al., (2002). "Effect of Methyl Methacrylate/Polyhedral Oligomeric Silsesquioxane Random Copolymers in Compatibilization of Polystyrene and Poly(methyl methacrylate) Blends", Macromolecules, Vol. 35, pp. 8029-8038.				
	М	PUMERA, M., et al., (2002). "Contactless Conductivity Detector for Microchip Capillary Electrophoresis", Anal. Chem., Vol. 74, pp. 1968-1971.				

Examiner Signature	Date Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.